

Pranjal Sahu

CONTACT INFORMATION	psahu@cs.stonybrook.edu https://pranjalsahu.github.io/home/ stackoverflow.com/users/907770	(631)-590-0490 github.com/PranjalSahu
INTERESTS	Machine Learning, Computer Vision, Medical Imaging.	
EDUCATION	Ph.D. in Computer Science, Stony Brook University, 2021 Dissertation Topic: Synthetic Data for Deep Learning in Medical Imaging Advisor: Dr. H. Qin Indian Institute of Technology Kharagpur, GPA: 8.35 B.Tech.(Hons) in Computer Science, 2013	
SKILLS	Python, C++, C, Matlab, Pytorch, Keras, Tensorflow, OpenCV, Numpy, Sklearn, Numba, Android SDK, Ruby on Rails, PostgreSQL, Spark, HBase, Git	
INTERNSHIPS	Siemens Healthineers , Malvern, PA. (2020) Segmentation of Lung CT in presence of severe pathologies. Improved recall of Tumor voxels from 0.56 to 0.87 and published the work in J-BHI journal. Siemens Healthineers , Malvern, PA. (2019) Large lung nodule detection in Siemens Syngo CT CAD. Brookhaven National Laboratory , Computational Science Initiative (2017) Autonomous Infrastructure for Transition Prediction.	
WORK EXPERIENCE	Oyo Rooms , Software Developer, Gurgaon, India. (2015-2016) Ruby on Rails backend developer, handled consumer facing iOS and Android APIs. HT Media , Data Scientist, Gurgaon, India. (2015-2015) Used Spark and HBase to create APIs for a real time mobile analytics dashboard. Samsung Research Institute , Software Engineer, Noida, India. (2013-2015) Handled performance related issues in Samsung Android smartphones.	
SELECTED PUBLICATIONS	P. Sahu , Y. Zhao, P. Bhatia, L. Bogoni, A. Jerebko, H. Qin. <i>Structure Correction for Robust Volume Segmentation in Presence of Tumors</i> , IEEE Journal of Biomedical and Health Informatics, J-BHI, 2020 P. Sahu , D. Yu, M. Dasari, F. Hou and H. Qin. <i>A Lightweight Multi-section CNN for Lung Nodule Classification and Malignancy Estimation</i> , IEEE Journal of Biomedical and Health Informatics, J-BHI, 2018. P. Sahu , D. Yu and H. Qin. <i>Apply lightweight deep learning on internet of things for low-cost and easy-to-access skin cancer detection</i> , SPIE, 2018 (Best Demo Award). M. Dasari, A. Bhattacharya, S. Vargas, P. Sahu , A. Balasubramanian, S. Das. <i>Streaming 360 degree Videos using Super-resolution</i> , IEEE INFOCOM 2020.	
HONORS AND AWARDS	2018 2016 2005	Best Demo Award in SPIE Medical Imaging Conference Computer Science Chairman Fellowship, Stony Brook University Represented home state in National Children Science Congress
INVITED TALK	<i>Deep Learning applications in Medical Imaging</i> , at Bell labs, Murray Hill (2019).	

OTHER PUBLICATIONS	<p>P. Sahu, H. Huang, W. Zhao, and H. Qin. <i>Distilling Classical Algorithm in CNN for a Human-in-the-loop Reconstruction Framework</i>, Under Review, MICCAI 2021.</p> <p>C. Zhan, M. Ghaderibaneh, P. Sahu, H. Gupta. <i>DeepMTL: Deep Learning Based Multiple Transmitter Localization</i>, WOWMOM 2021.</p> <p>P. Sahu, H. Huang, W. Zhao, and H. Qin. <i>Using virtual digital breast tomosynthesis for de-noising of low-dose projection images</i>, International Symposium on Biomedical Imaging, ISBI 2019.</p> <p>X. Duan, P. Sahu, H. Huang, W. Zhao. <i>Scatter correction with deep learning approach for contrast enhanced digital breast tomosynthesis (CEDBT) in both cranio-caudal (CC) view and mediolateral oblique (MLO) view</i>, IWBI 2020 (Oral).</p> <p>P. Sahu, D. Yu and K. Yager, M. Dasari and H. Qin. <i>In-Operando Tracking and Prediction of Transition in Material System using LSTM</i>, International Workshop on Autonomous Infrastructure for Science, HPDC, 2018.</p> <p>N. Song, D. Craciun et al. <i>Protein Shape Retrieval</i>, Eurographics Workshop on 3D Object Retrieval, 3DOR 2017.</p>	
CONFERENCE TALKS	<p><i>Lightweight Deep Learning on Internet of things</i> at SPIE, Houston (2018).</p> <p><i>Prediction of Transition in Material System using LSTM</i> at International Workshop on Autonomous Infrastructure for Science, HPDC, Phoenix, (2018).</p>	
SERVICE	<p>Reviewer for MICCAI, Journal of Medical Imaging (JMI), Ultrasonics Journal, Medical Physics</p> <p>Mentored Rutwik Palaskar (MIT ADT University, India) under the mentorship program at Machine Learning for Health (ML4H) workshop at NeurIPS 2020 on Oral Cancer detection work using pathology images.</p>	
GRADUATE COURSEWORK	<input type="checkbox"/> Computer Graphics <input type="checkbox"/> Computer Vision <input type="checkbox"/> Convex Optimization	<input type="checkbox"/> Artificial Intelligence <input type="checkbox"/> Analysis of Algorithms <input type="checkbox"/> Computer Networks
SELECTED ACADEMIC PROJECTS	<p><i>Facial Action Unit Detection</i>, Computer Vision, (Tensorflow) https://github.com/PranjalSahu/DRML</p> <p><i>Identification of user actions on Android apps</i>, Computer Networks, (Android)</p> <p><i>Point Cloud Triangulation</i>, Computer Graphics, (OpenGL, C++) https://github.com/PranjalSahu/Point-Cloud-Triangulation</p> <p><i>Automatic construction of 3D models from Architectural Line drawings</i>, Computer Graphics (OpenGL, C++). https://github.com/PranjalSahu/Automatic3DfromSketch</p>	
EXTRA CURRICULARS	<input type="checkbox"/> Silver medal in Inter Hall Thermocol and clay modelling at IIT Kharagpur <input type="checkbox"/> Member of Azad Hall of Residence Fine Arts team at IIT Kharagpur	
REFERENCES	Available on Request.	